


INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000053867	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/08092	International filing date (day/month/year) 24.07.2003	Priority date (day/month/year) 23.08.2002
International Patent Classification (IPC) or both national classification and IPC A61L15/18		
Applicant BASF AKTIENGESELLSCHAFT et al.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand  02.12.2003	Date of completion of this report  15.11.2004	
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Schnack, A  Telephone No. +49 89 2399-8149	



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/EP 03/08092**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-36 as originally filed

**Claims, Numbers**

1-30 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-27
	No: Claims	28-30
Inventive step (IS)	Yes: Claims	1-27
	No: Claims	28-30
Industrial applicability (IA)	Yes: Claims	1-30
	No: Claims	none

**2. Citations and explanations**

**see separate sheet**

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International application No. PCT/EP 03/08092

Reference is made to the following documents:

- D1: WO 96 30442 A (CAMELOT SUPERABSORBENTS LTD ;CAMELOT SUPERABSORBENTS BV (NL)) 3 October 1996 (1996-10-03)  
D2: WO 01 13965 A (STOCKHAUSEN CHEM FAB GMBH ;BREHM HELMUT (DE); HARREN JOERG (DE); I) 1 March 2001 (2001-03-01) cited in the application  
D3: US 6 124 391 A (MESSNER BERNFRIED A ET AL) 26 September 2000 (2000-09-26) cited in the application  
D4: US 5 140 076 A (HATSUDA TAKUMI ET AL) 18 August 1992 (1992-08-18) cited in the application  
D5: WO 01 68156 A (BASF AG ;DANIEL THOMAS (DE); RIEGEL ULRICH (DE); FRENZ VOLKER (DE)) 20 September 2001 (2001-09-20) cited in the application

**Section V**

**V.1. Novelty**

Remarks under Article 33(2) PCT:

The present application is directed to a process for manufacturing superabsorbent polymer (SAP) particles, said particles comprising further a clay constituent and optionally an "inorganic network builder", (claims 28-30). Claims 1-26 are further directed to the particles obtained by such a process and to uses of the obtained particles.

The process according to claim 28 is characterized by the following steps:

- (a)-(d) obtaining **dry** SAP particles by known processes, (cf. present page 9, lines 28-33).  
(e) applying a mixture of a clay and a surface-crosslinking agent to the SAP particles obtained in step (d)  
(f) heating the mixture obtained in step (e) to obtain a surface crosslinked SAP particle comprising clay deposited in the vicinity of the surface of the SAP particles.

The amount of clay in the surface-crosslinked SAP particles is, according to claim 1, 12% to 35%. However, this feature is not present in process claim 28.

D1 discloses a similar process, however the SAP according to D1 is not in a dry state when combined with the clay, (see D1, page 3-4, especially the sentence bridging pages 3 and 4). Thus, novelty of the present subject matter according to claims 1-30 appears acknowledgeable in view of D1.

Similar arguments apply for the teaching according to D5, (see D5, page 4, lines 2-3).

D2 discloses a process, which appears to fall within the scope of present claims 28-30, (see D2, page 14, third paragraph, example 5) and the claims).

However, the amount of clay used in D2 (zeolite appears to a clay type) appears to be below 10%, (see e.g. claim 2 and page 7, fourth paragraph). Thus, it seems that novelty of present claims 1-27 can be acknowledged in view of D2.

D3 also discloses a process falling within the scope of present claims 28-30, (see the passages mentioned in the search report). However, in similarity to the teaching of D2, the amount of clay used is at most 10 %, (see col. 7, lines 27-30). Thus, novelty of present claims 1-27 can be acknowledged in view of D3.

Corresponding arguments appears to apply for the teaching in D4, (see the passages mentioned in the search report and especially col. 8, lines 30-33).

Thus, in conclusion, the subject matter according to present claims 28-30 seems to lack novelty in view of each of the documents D2, D3 and D4, whereas the subject matter according to present claims 1-27 seems to be novel in view of the available prior art.

## ***V.2. Inventive step***

Remarks under Article 33(3) PCT:

The subject matter according to present claims 1-27 seems to involve an inventive step, the reasons being as follows:

D3 seems to be the closest prior art and said document teaches a content of clay of up to 10%. The presently claimed amount is 12-35% and present example 5 demonstrates an unexpected beneficial effect associated with such an increase in the amount of clay. These advantages do not appear to be derivable from the prior art.

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***V.3. Industrial applicability***

Remarks under Article 33(4) PCT:

The present claims fulfil the requirements of Article 33(4) PCT.